PRACTICAL CLINICAL BIOCHEMISTRY. By Harold Varley, M.Sc., F.R.I.C. (Pp. viii + 689; figs. 83. 50s.) London: Wm. Heinemann, Medical Books, 1962.

THE well-deserved popularity of this book and the rapidly expanding nature of the subject has justified a third edition only four years after the second edition had been introduced. As in previous editions, each chapter consists of an introduction to the subject, practical details of the analytical methods and a comprehensive clinical interpretation. A completely new chapter on enzymes has been introduced which includes the transaminases, lactic dehydrogenase, aldolase and cholinesterase estimations. The chapter on acid base balance has been rewritten giving an excellent account of acid base regulation and including a detailed description of the Astrup techniques for the determination of blood pH, $Pco_2$, standard bicarbonate and buffer excess. The relationship of the catechol-amines and their derivatives are described, together with the latest methods for the estimation of 3-methoxy-4-hydroxy mandelic acid (V.M.A.), metadrenaline and normetadrenaline. Other additional material includes the glucose oxidase method for glucose, the diacetyl monoxime method for urea, estimation of blood ammonia, the D-xylose excretion test, enzymic methods for serum pyruvate, serum lactate, and a method for urinary pregnanetriol.

It is unfortunate that the author did not take advantage of this new edition to eliminate material which can be found in established textbooks of medicine and physiology. This includes clinical details for carrying out test meals and glucose tolerance curves, and for the control of diabetes and diabetic comas. Descriptions of colorimeters and flame photometers also duplicate information which can be obtained from the manufacturers of these instruments. A number of the methods given for the more common biochemical estimations have largely fallen into disuse and could have been removed. Of the eight methods described for blood sugar, only two or three are worth describing in detail, and brief references would be sufficient for the remainder.

In place of the subjects referred to above, the enzyme chapter could have been expanded to include iso-citric dehydrogenase, leucine aminopeptidase and exopeptidase. These enzymes may be of uncertain clinical value, but they have received considerable attention in recent years. A method for the estimation of aldosterone would have been useful, and a recently published method for ketogenic steroid oxidation using periodate could have been described. Considering the widespread use of the Technicon Autoanalyzer, it is surprising that some reference was not made to its place in clinical biochemistry.

In spite of these deficiencies, however, this remains the best book available on practical clinical biochemistry. It has been highly valued by workers in this field, and the additional information contained in this enlarged edition will be very welcome. S. G. W.

ELECTRON MICROSCOPY. By Gilbert Causey, M.B., F.R.C.S. (Pp. vii + 238; figs. 160. 48s.) Edinburgh and London: E. & S. Livingstone, 1962.

THE past decade has seen a great expansion in the study of normal and pathologic tissues with the electron microscope and a vast amount of information has been documented. As yet, however, little attempt has been made to gather together and distil what has been learned, for the benefit of those not intimately connected with this field. Professor Causey's book, which presents an uncomplicated digest of the basic work which has been done on normal tissue, is, therefore, a timely contribution.

After two very brief technical chapters on the electron microscope and specimen preparation, the author deals systematically and in a well-balanced fashion with the ultrastructural anatomy of the various organs and tissues. The text is clear and is illustrated by close on 140 electron micrographs, most of which are good. A recent reference is given to each major subject so that the interested reader has a lead into the literature. The quality of the paper and type are excellent and it is very much to the credit of Messrs. Livingstone that the price is so reasonable.

This book can be strongly recommended to anyone seeking basic information about the ultrastructure of tissues. W. T. E. MCC.